

CA20N
MB
- 2005

What's in it for you.

Governments
Publications

Cost Savings:

by recycling, reusing,
and reducing

Job Creation:

a mechanized composter
that's built in
Ontario and exported
internationally

Green Buildings:

new office buildings that
are green to the core



Ontario

What's turning green next?

Designing for the environment

Practical tips on reducing waste, energy use and water consumption at the Design Exchange, Toronto Dominion Centre, Monday February 20, 1995. Morning workshop. Afternoon display of products.

Economic benefits of going green

Learn the economic benefits of greening your operations at the one-day Business and Environment Conference to be held in conjunction with the Metro Business Show, Metro Toronto Convention Centre, Wednesday March 29, 1995.

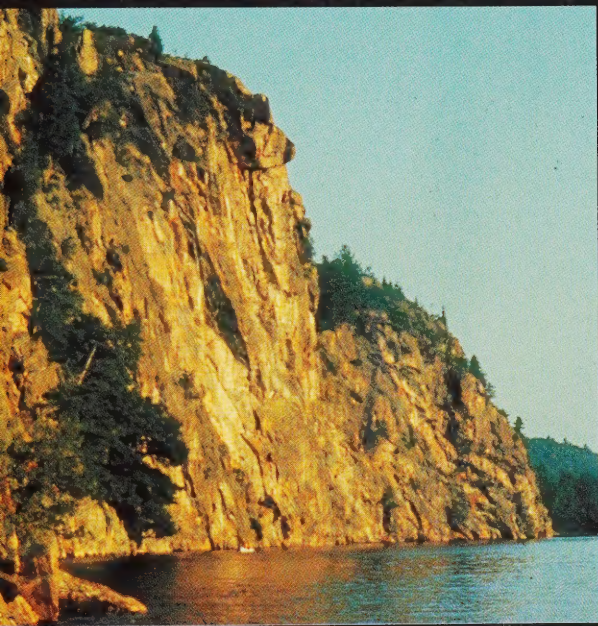
International workshop and conference on buildings and the environment

A four-day conference designed to help the real estate and construction industry develop an Eco-Building Vision, Metro Toronto Convention Centre, November 15-18, 1995.

Canadian Buy Recycled Alliance (CBRA)

Stay tuned for the launch of the Canadian Buy Recycled Alliance as public and private sector organizations across Canada join forces to increase demand for products with recycled content and stimulate markets for Blue Box materials.

The conferences and initiatives listed above have a wide variety of sponsors and supporters. For more information, call the Management Board Secretariat at (416) 327-3777 or fax (416) 327-4193.



Let's hear
it for
the stones...



A Message from the Minister.


Governments must lead by example and the Ontario Government provides a model for other employers in the greening of business operations. We intensified the greening of the operations of the Ontario Government in 1991, expanding a waste management program into a full 3Rs program that is now one of the largest in North America. Four years later, the greening efforts of more than 80,000 Ontario

Public Service employees have evolved into a broad initiative that includes:

- diverting 50 per cent of workplace waste,
- a \$100-million energy retrofit program for existing provincial buildings,
- greening our \$400-million new construction program with environmental design guidelines,
- introducing BEPAC – Building Environmental Performance Assessment Criteria,
- innovation in water conservation techniques,
- participating in the expansion of the Toronto District Heating Corporation,
- funding new composting technologies that have created Ontario jobs and export sales, and
- creating new markets for recycled Blue Box materials by supporting the Build Green program.

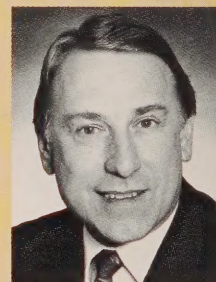
These initiatives are part of a broad greening initiative that includes a \$26.4 million Home GreenUp program and \$15.5 million in funding for industrial green audits and retrofits. The combined impact of these programs is helping the growth of green industry in Ontario.

The private sector is joining us in partnerships that are improving our environment and creating jobs. We hope you will join with the Ontario Government and help build on our successes. Green is good business.



Brian Charlton

Chair, Management Board of Cabinet



Loam sweet loam.



Q: What creates jobs, is all-Canadian in design and manufacture, eats almost any garbage (table waste, meat scraps, used paper towels, even old automobile tires), and fits in almost anywhere from a municipal dump to a science centre and an aircraft carrier?

A: Wright Environmental's in-vessel continuous flow composting machine, a double-walled steel tunnel that takes a mixture of heavy food waste mixed with wood chips, unrecyclable cardboard and paper towel and turns it into high-quality compost in just 28 days.

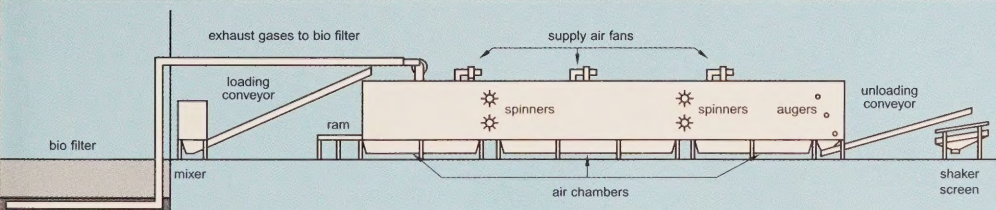
◀ The composter — a machine that closes the loop. Food waste that began as plants growing in soil ends up as soil rich in loam that grows plants.

...and the trees and the water and the air.

▼ Underneath the land shown here is part of downtown Toronto's furnace. The government has leased three boilers to the energy- and cost-effective Toronto District Heating Corporation. The boilers are supplying steam to the corporation's steam heating system.



▲ Tired of endless watering and mowing? Try xeriscaping — creative landscaping that uses drought-resistant plants, subsurface irrigation and mulch to save water. Queen's Park in Toronto has a working example of a xeriscape (Pronounce: zerascape) garden.




◀ The Ontario Government purchased Wright's first mechanized composter, opening the door for demonstration of the technology and the resulting sales success.

► Co-inventor Jim Wright: "Customers came looking for us."

This publication is printed on 50% recycled, 25% post-consumer recycled stock.



 Ontario

Il existe une version française de ce document.



You can see the composter at the Ontario Science Centre; but you won't be turning up your nose from the smell of it. Air from the composter is drawn through an external bio-filter. Clean, rodent-free and relatively odourless, the composter is suitable for the back dock of hospitals, the garbage areas of urban restaurants and the galleys of ships at sea.



▲ Ottawa Fibre manufactured the first product to receive the Build Green label. The insulation is made from a minimum of 50 per cent recycled glass.



The centrepiece for the renewal of Sarnia's waterfront is a reused building that showcases the use of Build Green materials. Sarnia is one of Ontario's original Green Communities where community action programs encourage the greening of residential buildings through energy, waste, and water reduction. Visitors from other Green Communities will study the Sarnia example and will spread the message of closing the recycling loop in construction.



Is there a demand for products made from recycled materials? Nicholas Holownia of Ottawa Fibre, who makes Golden FIBRE GLASS, says yes. The insulation is collected in the Blue Box. Ottawa Fibre is now expanding nationally to meet consumer demand.

What goes comes Then you something



led materials? Ask
ulation from glass
ng its products

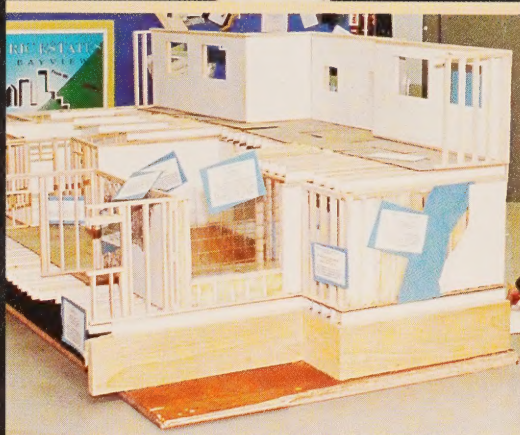
► Nancy Epifani, Jennifer Angelone and Daniela Ricitano of Madonna Catholic Secondary School in North York wrote the prize-winning children's story *A New Home for Mr. Brick*.

s around around. e build g with it.

What do we do with material that we've diverted from the landfills? Aluminum and steel are easy to recycle by melting them and remanufacturing them. But what about other materials – paint, glass, paper, wood, and rubber?

With the support of the Ontario Government, the Greater Toronto Home Builders' Association and ORTECH Corporation have developed a Build Green labelling program to help consumers identify products that contain recycled materials and meet building quality standards.

► Entrepreneurs have found opportunity in greening, creating new products that use recycled materials.



▼ Ed Scott, Manager, Design Services Branch, Management Board Secretariat.

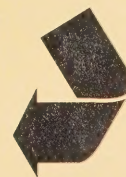


► Green building materials are on display in a resource centre at Queen's Park.

Ontario's secondary schools participated in the Build Green Student Challenge by writing storybooks, making promotional videos and designing communities that emphasize the use of products made from Blue Box materials.

Examples of student work are on display at the offices of Build Green Inc., 20 Upjohn Road, North York, Ontario.

New government buildings under construction, including the Ministry of Natural Resources building in Peterborough, will incorporate recycled products, thanks to the work of Ed Scott and his staff. Government master specifications are already complete for floor and wall tiles made from recycled automobile glass, undercarpet from tires, wallboard from post consumer paper waste and recycled gypsum, and building insulation from recycled glass.



Reduce. Reuse. Recycle.

In 1989, when the Ontario Government began greening its operations, the average output of garbage was nearly a kilogram a day by each employee. By 1992, that had been cut in half. The greening efforts of the Green Workplace Program led to the Ontario Public Service meeting its target of 50 per cent waste diversion three years ahead of schedule. Government employees have become more aware of their responsibilities for the amount of material our society sends to landfills.



▼ Ron Giardetti, Ontario Government property manager in Thunder Bay, has made provincial buildings 3R leaders in Northern Ontario.



Some public service buildings have been going Maximum Green — reducing waste by an additional 50 per cent by increasing the number of materials that are recycled and replacing larger personal garbage cans with desktop mini-bins.



Brockville Psychiatric Hospital's 800,000 worms will feed happily on the 200 kg of scraps and waste food that the kitchen produces daily. But first you have to create a waste stream especially for the worms. "And the word worm," says the hospital's director of materials management Jack Hewitt, "is a word you don't even use in polite society unless you happen to be going fishing."

Dinner is served.



▲ Vermiculture uses red wigglers, worms that can eat their weight in food every day. Brockville Psychiatric Hospital installed a large-scale vermiculture composting system. The worms can handle 275 kg of food per day.



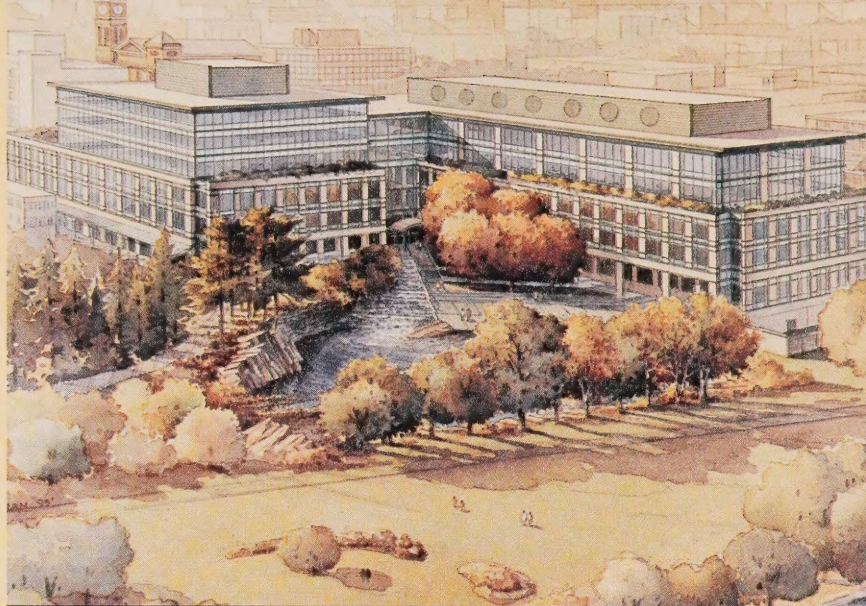
"They'll eat almost everything," says head gardener Dave Wilson. "The only things left in the castings when the worms are finished are little bits of plastic from the lining of milk cartons that were ground up with the food. The rest is soil that can be used as fertilizer — and we have nearly 20 hectares of lawn here to use it on; once we are getting enough castings from our vermiculture operation, we will be able to stop buying fertilizer for the lawns."

The new Ontario Ministry of Natural Resources building in Peterborough presents two faces to the world — an urban face with a stone facade that fits into the local streetscape, and a wilder perspective complete with an interpretive pond that blends into the park setting on the Otonabee River side of the building. But it has only one interface with the environment — a friendly one.

From the very start of the planning process, the environmentally conscious design guidelines wrote a green destiny into the core of the 365,000 square foot six-storey building. The greening initiative concentrates on energy conservation, the indoor environment, including noise pollution, water conservation and the 3Rs. The results? Extraordinary!

Ontario's \$400 million construction program — new courthouses, a hospital, OPP headquarters, and four office buildings for relocating ministries — is creating needed construction jobs and permanent jobs in communities across Ontario.

▼ Part of greening construction involves working with suppliers and sub-contractors to ensure that construction waste is minimized.



Even the toilets are green.



The construction program has provided a unique opportunity for the provincial government to create a model of environmentally friendly construction and to encourage entrepreneurs to develop and market products that use recycled materials.

In these new buildings, the government is making ground-breaking efforts in environmentally conscious building design and materials procurement that:

- incorporate the latest technologies for energy efficiency,
- require plumbing fixtures and landscaping techniques that will dramatically reduce water use, and
- specify new heating systems that reduce the use of ozone-depleting substances.



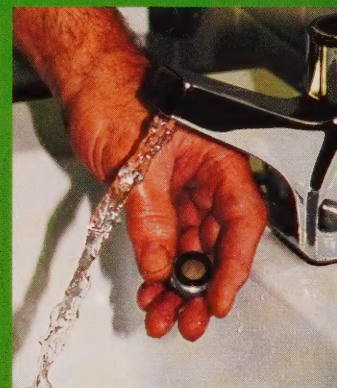
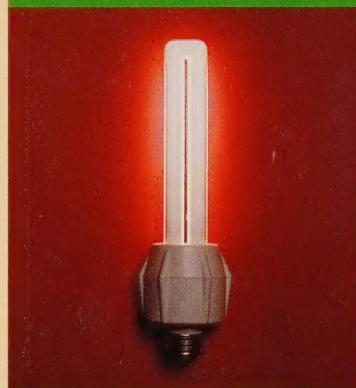
Green is the colour of money.

The \$100-million Government Energy Management Program will create jobs in the building renovation, energy supply and engineering industries across the province as government-owned buildings are retrofitted with more energy-efficient lighting, heating and cooling systems and motors. By the end of the century, government buildings will be 20 per cent more energy efficient. The work will be paid for out of the energy savings — the \$20 million annual reduction in the government's \$88-million energy bill — while creating as many as 1,000 new jobs in construction and related trades.

Reduced energy consumption helps the environment and the program is creating partnerships that include the government as well as private sector companies and trade unions that are providing financing for the project.



▲ The Ministry of Environment and Energy building will be retrofitted for improved energy efficiency and have a comprehensive environmental evaluation.



▲ Energy-efficient lighting and aerators that reduce water use both save money.

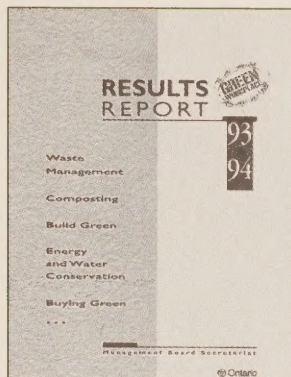


▲ Building automation systems save money and energy with computerized monitoring and control of heat, light and motors.

The next step in workplace greening is BEPAC — Building Environmental Performance Assessment Criteria — evaluating government buildings against standards for ozone layer protection, greenhouse gas emissions, resource conservation, indoor air quality and access to green space and public transportation. The action plan for upgrading each building's performance will be paid for, in part, out of the savings from energy and water conservation.

Get some green stuff in your mail box.

- About 80,000 Ontario government employees are practicing the 3Rs in 763 workplaces across the province. Their efforts are diverting 13,000 tonnes of waste annually and saving \$1.3 million in landfill disposal costs.
- Diversion rates in Maximum Green buildings are as high as 90 per cent.
- In 11 buildings, the Maximum Green program has diverted an extra 272 tonnes per year, saving an additional \$27,000 in disposal fees alone.
- The Government Energy Management program will reduce energy costs by 20 per cent by the year 2000 and create 1,000 jobs.
- Over 10,000 low-flow tap aerators have been purchased since 1991 to help make government buildings more water-efficient.
- Drought-tolerant landscaping is now a design standard for new government construction.



The *Green Workplace Results Report* gives an overview of the activities and achievements of the Green Workplace in greening the Ontario Public Service and showcasing a green workplace in action.

Get a Grip On Greening contains helpful tips on setting up a greening program in your workplace. The booklet has case studies and examples from the Ontario Government experience.



For free information on greening your office:

Call (416) 327-3777, fax (416) 327-4193,
Internet address: mbsgreen@gov.on.ca
or mail this postage-paid card, requesting:

☐ Get a Grip on Greening ☐ The Green Workplace Results Report

Name: _____

Address: _____

This desktop garbage can could use your input.

Go ahead and keep the tips.

- Reduce and reuse before you recycle — use as little as possible, reuse what you can; recycle the leftovers.

- Single-sided photocopies will be harder to get if your photocopier defaults are set for double-sided copying. Make it easy to conserve paper.

- Go paperless: Email and voicemail are both faster and greener than paper-dependent mail.

- Green procurement starts everything off right — reusable coffee cups, remanufactured toner cartridges, products with the EcoLogo...

- Order in bulk to reduce packaging; look for products with minimum packaging.

- Use the off buttons — lights, computers, printers, photocopiers and other energy-consuming office equipment can be turned off overnight and when not in use.

- Close the recycling loop — purchase products with recycled content and encourage green industry by creating demand.

- Reduce air pollution by using public transit, cycling, walking to work or carpooling — call 1-800-56-SHARE to share a ride.



Hand-sized garbage cans are used in Maximum Green buildings; recycling and reuse takes care of most of the waste.



MAIL  **POSTE**

Canada Post Corporation
Société canadienne des postes
Postage paid Port payé
if mailed in Canada si posté au Canada
Business Reply Réponse d'affaires

0010010299 01



0010010299-M7A1N3-BR01

THE GREEN WORKPLACE
MANAGEMENT BOARD SECRETARIAT
PO BOX 40009 STN BRM B
TORONTO ON M7Y 5J9



3 1761 11548000 6



Ontario